

# TECHNIQUES FOR CONFIGURING PROGRAMMABLE LOGIC USING ON-CHIP NONVOLATILE MEMORY

## Abstract

Techniques and circuitry provide fast, accurate, proper, and reliable transfer of configuration data from an on-chip nonvolatile memory to the programmable logic core of a programmable logic integrated circuit. A first technique includes not allowing the programmable logic to be configured until the data held in the on-chip nonvolatile memory can be read correctly and reliably. A second technique includes verifying the configuration data is transferred from the nonvolatile memory to the programmable logic core correctly and without error during the transfer process.

These two techniques may be combined or used individually during the configuration of an integrated circuit.